REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application.

Claims 1-48 were previously pending.

Claims 1, 20, 27-30, 35-41, 45, and 47are currently amended.

Claims 2 and 42-44 are canceled.

Claims 1, 3-41, and 45-48 are currently pending.

Claim Objections

Claims 28, 43 and 47 were objected to as having typographical errors. Claims 28, 43 and 47 have been amended to fix the typographical errors.

Rejections Under 35 U.S.C. § 101

Claims 27-29, 35-41 and 42-44 were rejected as being directed to non-statutory subject matter.

Claims 27-29 have been currently amended to recite a caricature engine embodied as instructions on a computer-readable storage medium.

Applicant submits that insertion of the language "embodied as instructions on a computer-readable storage medium" overcomes the examiners rejection of Claims 27-29.

Claims 35-41 have been currently amended to recite a computer readable *storage* medium.

Applicant submits that insertion of "storage" overcomes the examiners rejection of Claims 35-41.

Claims 42-44 have been canceled.

In the light of the above amendments, Applicant respectfully requests the Examiner to remove the rejections under 35 U.S.C. § 101 for these claims.

Rejections Under 35 U.S.C. § 102(b)

Claims 1, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17, 19, 20-24, 26, 27, 29, 35, 36, 37, 38 39, 42, 45, 46 and 48 were rejected under 35 USC § 102(b) as being anticipated by IEEE: Example-based Caricature Generation with Exaggeration, by Liang et al. ("the Liang reference" or "Liang").

Claim 1

Claim 1 has been amended to more particularly point out and distinctly claim the subject matter. Claim 1, as amended defines a method, including:

- receiving a facial image;

- creating a line-drawing from the facial image;

- computing a set of semantic facial features from key points of a face in the facial image to describe a geometric shape of the face;

- comparing relationships among the semantic facial features to corresponding relationships between unexaggerated and exaggerated features in facial images and associated caricatures in a database of caricatures drawn by an artist;

- applying a kernel regression to select some of the semantic facial features for caricature exaggeration and to exaggerate the semantic facial features into exaggerated features, wherein a nonlinear

mapping between corresponding unexaggerated and exaggerated features in the database is learned via the kernel regression;

- generating an exaggerated face shape by applying a maximum likelihood estimation (MLE) to the exaggerated features;

- morphing the line-drawing into the exaggerated face shape to create a facial caricature;

- wherein for each semantic facial feature to be exaggerated the degree of exaggeration is determined by the kernel regression; and

- wherein the degree of exaggeration of each feature to be exaggerated is adjustable by a user.

The Liang reference, on the other hand, describes a system that generates caricatures from input images by splitting the caricature generation process in two steps: shape exaggeration and texture style transferring. The shape exaggeration is accomplished by a prototype-based method by using correlation between image caricature pairs present in the training data using *partial least squares*. There are numerous elements of Applicant's claims that Liang does not show or disclose. Particularly, Liang does not show or disclose each element of Applicant's claim 1. For example, Liang does not show or disclose applying a kernel regression to select some of the semantic facial features for caricature exaggeration. Rather, Liang describes disintegrating the image into shape and shape-free texture (Fig 1) and manually labeling sets of feature points as a shape model on the original image as well as the exaggerated caricature (Section 2). But Liang does not show or disclose applying kernel regression to select the semantic facial features for caricature exaggeration.

Liang also does not show or disclose that the degree of exaggeration of each feature to be exaggerated is adjustable by a user. Rather, Liang describes that when an image is presented, a particular prototype is chosen automatically and the magnitude of the exaggeration is discovered through linear regression by comparing the image to the closest match in the already available training data. The training data is developed from learned exaggeration prototypes. However, Liang does not show that users can adjust the magnitude of exaggeration applied.

Since Liang does not show or disclose each element of claim 1, Applicant respectfully requests that the 35 USC 102(b) rejection be removed, and further submits that claim 1 is allowable over the Liang reference.

Dependent claims 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17 and 19

For at least the reasons set forth above with respect to claim 1, Applicant submits that dependent claims 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17 and 19 are also allowable over the Liang reference. Dependent claims contain the language of the claims from which they depend. Claims 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17 and 19 depend from claim 1, therefore Applicant submits that these claims are allowable.

Claim 20

Claim 20 has been amended to more particularly point out and distinctly claim the subject matter. Claim 20 as amended describes a system, comprising:

- means for rendering a facial image into a drawing;
- means for comparing relationships among facial features in the drawing to corresponding relationships in facial images and

associated caricatures in a database of facial images and corresponding characters drawn by an artist;

- means for exaggerating at least one relationship among facial features in the drawing based on the corresponding relationships in the facial images and associated caricatures; and

- wherein a degree of exaggeration for each facial feature to be exaggerated is user-adjustable.

For reasons similar to those discussed above for claim 1, the Liang reference does not show or disclose each element of claim 20. For example, Liang does not show or disclose that "a degree of exaggeration for each facial feature to be exaggerated is user-adjustable." Rather, Liang describes a prototype that is defined on a subset of training data that contains samples with similar exaggeration direction. Based on this training data, a prototype to which the image to be exaggerated most closely matches is selected. Liang does not show that the degree of exaggeration is user-adjustable.

Since Liang does not show or disclose each element of claim 20, Applicant respectfully submits that claim 20 is allowable over Liang and requests that the 35 USC 102(b) rejection be removed.

Dependent claims 21-24 and 26

For at least the reasons set forth above with respect to claim 20, Applicant submits that dependent claims 21-24 and 26 are also allowable over the Liang reference. Dependent claims contain the language of the claims from which they

depend. Claims 21-24 and 26 depend from claim 20, therefore Applicant submits that these claims are allowable.

Claim 27

Claim 27 has been amended to more particularly point out and distinctly claim the subject matter. Claim 27 as amended defines a caricature engine embodied as instructions on a computer-readable storage medium, comprising:

- a facial features and relationships locator to receive a facial image and locate a set of facial features and relationships among facial features in the facial image;

- an exaggeration engine to compare the facial features and relationships in the facial image to facial features and relationships in a collection of pairs of facial images and associated caricatures in a database in order to determine which of the facial features and relationships to exaggerate in the facial image;

- an exaggeration constraint engine to compare exaggerations applied to the facial image with at least one selected caricature from the associated caricatures in order to conform a degree of the exaggerations to the at least one selected caricature;

- wherein a degree of exaggeration for each facial feature to be exaggerated is user-adjustable.

For reasons similar to those discussed above for claim 1 and 20, the Liang reference does not show or disclose each element of claim 27. For example, Liang

does not show or disclose that "a degree of exaggeration for each facial feature to be exaggerated is user-adjustable." Rather, Liang describes that a prototype is defined on a subset of training data that contains samples with similar exaggeration direction. The training data determine which prototype most closely matches the image to be exaggerated. Liang does not describe that the degree of exaggeration is user-adjustable.

Since Liang does not show or disclose each element of claim 27, Applicant respectfully submits that claim 27 is allowable over Liang and requests that the 35 USC 102(b) rejection be removed.

Dependent claim 29

For at least the reasons set forth above with respect to claim 27, Applicant submits that dependent claim 29 is also allowable over the Liang reference. Dependent claims contain the language of the claims from which they depend. Claim 29 depends from claim 27, therefore Applicant submits that this claim is allowable.

Claim 35

Claim 35 has been amended to more particularly point out and distinctly claim the subject matter. Claim 35 as amended defines a computer readable storage medium containing instructions that are executable by a computing device to perform actions including:

- comparing relationships among facial features in a facial image to corresponding relationships in a collection of facial images and associated caricatures; and

- exaggerating at least one relationship among facial features in the facial image based on the comparing;
- wherein the exaggerating includes applying a kernel regression technique and the degree of the exaggerating is user-adjustable.

For reasons similar to those discussed above for claim 1, the Liang reference does not show or disclose each element of claim 35. For example, Liang does not show or disclose applying a kernel regression technique for exaggeration. Rather, Liang describes manually labeling a set of feature points as a shape model on the original image as well as the exaggerated caricature (Section 2). But Liang does not show or disclose applying kernel regression for exaggerating the semantic facial features.

Further, the Liang reference also does not disclose that the degree of exaggeration is user-adjustable. Rather, the Liang reference describes that when an image is presented, a particular prototype is chosen automatically and the magnitude of the exaggeration is discovered through linear regression by comparing the image to the closest match in the already available training data. The training data is developed from learned exaggeration prototypes. Liang does not show that users can adjust the magnitude of exaggeration applied.

Since Liang does not show or disclose each element of claim 35, Applicant respectfully requests that the 35 USC 102(b) rejection be removed, and further submits that claim 35 is allowable over the Liang reference.

Dependent claims 36, 37, 38, 39 and 42

For at least the reasons set forth above with respect to claim 35, Applicant submits that dependent claims 36, 37, 38, 39 and 42 are also allowable over the Liang reference. Dependent claims contain the language of the claims from which they depend. Claims 36, 37, 38, 39 and 42 depend from claim 35, therefore Applicant submits that these claims are allowable.

Claim 45

Claim 45 has been amended to more particularly point out and distinctly claim the subject matter. Claim 45 as amended describes an automated method, including:

- collecting pairs of facial images, wherein each pair includes an unexaggerated facial image and a caricature of the unexaggerated facial image;

- receiving a facial drawing to compare with the pairs of facial images;

- iteratively comparing characteristics of the facial drawing with characteristics in the pairs;

- selecting one of the pairs via a kernel regression technique as a model for variably exaggerating at least part of the facial drawing; and

- wherein the degree of variable exaggeration via the kernel regression technique is user-adjustable.

For reasons similar to those discussed above for claim 1, the Liang reference does not show or disclose each element of claim 45. For example,

Liang does not show or disclose selecting one of the pairs via a kernel regression technique as a model for variably exaggerating at least part of the facial drawing. Rather, Liang describes manually labeling sets of feature points as shape models on an original image as well as the exaggerated caricature (section 2). But Liang does not show or disclose applying kernel regression for exaggerating the facial drawing.

Further, the Liang reference also does not disclose a user-adjustable degree of exaggeration via kernel-regression. Rather, the Liang reference describes presentation of an image, such that a particular prototype is chosen automatically and the magnitude of the exaggeration is automatically discovered through linear regression by comparing the image to the closest match in the already available training data. The training data are developed from learned exaggeration prototypes.

Liang also does not show or disclose that "a degree of exaggeration for each facial feature to be exaggerated is user-adjustable." Rather, Liang describes a prototype is defined on a subset of training data that contains samples with similar exaggeration direction. Based on this training data, a prototype to which the image to be exaggerated most closely matches is selected. Liang does not show that the degree of exaggeration is user-adjustable.

Since Liang does not show or disclose each element of claim 45, Applicant respectfully submits that claim 45 is allowable over Liang and requests that the 35 USC 102(b) rejection be removed.

Dependent claims 46 and 48

For at least the reasons set forth above with respect to claim 45, Applicant submits that dependent claims 46 and 48 are also allowable over the Liang reference. Dependent claims contain the language of the claims from which they depend. Claims 46 and 48 depend from claim 45, therefore Applicant submits that these claims are allowable.

Rejections Under 35 U.S.C. § 103(a)

The Office rejects claims 2, 3, 24, 25, 28, 40, 43, 44 and 47 under 35 USC § 103(a) as being unpatentable over Liang in view of Jaakola et al, Proceedings of 1999 Conference on AI and Statistics, "Probabilistic Kernel Regression Models."

The Office rejects claim 15 under 35 USC § 103(a) as being unpatentable over Liang in view of Jaakola et al, Proceedings of 1999 Conference on AI and Statistics, "Probabilistic Kernel Regression Models" and further in view of Taylor et al. (US Pat. No. 7,095,878 B1).

The Office rejects claim 4 under 35 USC § 103(a) as being unpatentable over Liang in view of Tal et al. (US Pat. No. 4,975,969).

The Office rejects claims 18, 30, 31, 33, 34 and 41 under 35 USC § 103(a) as being unpatentable over Liang in view of Massarsky et al. (US Pat. No. 6,385,628 B1).

The Office rejects claim 32 under 35 USC § 103(a) as being unpatentable over Liang in view of Harville et al. (US Pat. No. 7,149,961 B2).

Claim 2

Claim 2 has been canceled in the current amendment.

Claim 3

Besides being dependent on allowable base claim 1, claim 3 is also allowable because the combination of Liang and Jaakola does not teach or suggest all the elements of claim 3. That is, Liang and Jaakola, alone or in combination, do not teach or suggest that the kernel regression technique assigns various weights to the facial images and associated caricatures based on a similarity to one or more relationships among facial features in the drawing. Liang only teaches comparing an image to a training data and assigning a prototype for exaggeration based on the closest match. It fails to disclose associating weights to the facial images based on similarities in features. Further, Jaakola only teaches a class of flexible conditional probabilistic models and techniques for classification/regression problems.

Because it does not teach or suggest the elements of Applicant's claim 3, the combination fails. Applicant respectfully submits that claim 3 is allowable over Liang in view of Jaakola.

Claim 14

Besides being dependent on allowable base claim 1, claim 14 is also allowable because the combination of Liang and Jaakola does not teach or suggest all the elements of claim 14. That is, Liang and Jaakola, alone or in combination, do not teach or suggest performing a kernel regression in order to map the relationship to similar relationships among similar facial features in the facial images; and selecting the relationship for exaggeration if the relationship varies by a threshold from an average for the similar relationships. Liang only teaches

comparing an image to a training data and assigning a prototype for exaggeration based on the closest match. It fails to disclose that the relationship is selected if it varies by a threshold from an average for the similar relationship. Further, Jaakola only teaches a class of flexible conditional probabilistic models and techniques for classification/regression problems. It fails to describe using kernel regression technique for mapping relationship to similar relationships among similar facial features.

Because it does not teach or suggest the elements of Applicant's claim 14, the combination fails. Applicant respectfully submits that claim 14 is allowable over Liang in view of Jaakola.

Claim 25

Claim 25 depends from allowable base claim 20. In addition, Liang and Jaakola, either alone or in combination, do not teach or suggest all the elements of claim 25. For example, they do not teach or suggest the kernel regression technique assigns various weights to the facial images and associated caricatures based on a similarity to one or more relationships among facial features in the drawing.

Because they do not teach or suggest the elements of Applicant's claim 25, the combination fails. Applicant respectfully submits that claim 25 is allowable over Liang in view of Jaakola.

Claim 28

Claim 28 also depends from allowable base claim 20. In addition, Liang and Jaakola, either alone or in combination, do not teach or suggest all the

elements of claim 28. For example, they do not teach or suggest a learning engine to compare the facial features and relationships in the facial image to facial features and relationships in the collection by applying a kernel regression technique.

Because they do not teach or suggest the elements of Applicant's claim 28, the combination fails. Applicant respectfully submits that claim 28 is allowable over Liang in view of Jaakola.

Claim 40

Besides being dependent on allowable base claim 35, claim 40 is also allowable because the combination of Liang and Jaakola does not teach or suggest all the elements of claim 40. That is, Liang and Jaakola, alone or in combination, do not teach or suggest that the kernel regression technique assigns various weights to facial images and associated caricatures in the collection based on a similarity to one or more relationships among facial features in the facial image.

Liang only teaches comparing an image to a training data and assigning a prototype for exaggeration based on the closest match. It fails to disclose associating weights to the facial images and associated caricatures. Further, Jaakola only teaches a class of flexible conditional probabilistic models and techniques for classification/regression problems.

Because it does not teach or suggest the elements of Applicant's claim 40, the combination fails. Applicant respectfully submits that claim 40 is allowable over Liang in view of Jaakola.

Claim 44

Claim 44 has been canceled in the current amendment.

Claim 48

Claim 48 depends from allowable base claim 45. In addition, Liang and Jaakola, either alone or in combination, do not teach or suggest all the elements of claim 48. For example, they do not teach or suggest that the iterative comparing constraints the variable exaggeration of a relationship among facial features in the facial drawing to a degree of exaggeration of a corresponding relationship in the model.

Because they do not teach or suggest the elements of Applicant's claim 48, the combination fails. Applicant respectfully submits that claim 48 is allowable over Liang in view of Jaakola.

Claim 15

Besides being dependent on allowable base claim 1, claim 15 is also allowable because neither Liang nor Jaakola or Taylor, alone or in combination, teach or suggest all the elements of claim 15. For example, Liang does not teach or suggest assigning weights to the facial images based on a similarity of the relationship to corresponding relationships among facial features in the facial images, wherein a high weight is assigned to a high similarity. Liang simply describes comparing an image to a training data and assigning a prototype for exaggeration based on the closest match. Liang reference does not disclose assigning weights based on high similarity. Further, Taylor does not disclose applying a linear regression to the weighted facial images. Taylor describes a face recognition system which helps identify a person even when his appearance is altered due to a change in the pose, illumination or expression. For the purpose, a probability density function of the face is made, centered around the mean face

expression. When a face has to be identified, it is compared to the values within this probability density function. However, Taylor fails to disclose assigning weights based upon similarity of features between the reference image and the image whose caricature is to be made.

Because the combination fails, Applicant respectfully submits that claim 15 is allowable over Liang in view of Jaakola and further in view of Taylor.

Claim 4

Besides being dependent on allowable base claim 1, claim 4 is allowable because neither Liang nor Tal, alone or in combination, teach or suggest all the elements of claim 4. Just because Tal mentions obtaining a ratio of facial parameters of an individual does not mean that Tal's parameters can be used to determine which features to exaggerate while creating the caricature of the image as in Applicant's exaggeration engine of figure 4 in which the model of the unexaggerated facial image, describing a set of semantic facial features and relationships automatically exaggerates some of the facial features and/or relationships using a comparison with corresponding facial features and relationships in a database of training images. Hence, Liang and Tal do not teach or suggest all the elements of Claim 4. Because the combination fails, Applicant respectfully submits that claim 4 is allowable over Liang in view of Tal.

Claim 18

Besides being dependent on allowable base claim 1, claim 18 is allowable because neither Liang nor Massarsky, alone or in combination, teach or suggest all the elements of claim 18. For example, Liang and Massarsky, alone or in

combination, do not teach or suggest that the degree of the exaggerating is selectable by a user. Liang simply describes that when an image is presented, a particular prototype is chosen automatically and the magnitude of the exaggeration is discovered through linear regression by comparing the image to the closest match in the already available training data. The training data is developed from learned exaggeration prototypes. Liang does not show that users can adjust the magnitude of exaggeration applied. Further, Massarsky describes a system of creating a caricature from an image taken in a photobooth. In this system, a variety of drawing icons are displayed for the user to choose from. This icon is moved on the screen and the caricature is gradually created following the path of the icon to simulate a sketch or painting created by an artist's hand (Col. 5, Lines 10-20). Massarsky does not mention that user can adjust the degree of exaggeration to be applied to the caricature.

Hence, Liang and Massarsky do not teach or suggest all the elements of Claim 18. Because the combination fails, Applicant respectfully submits that claim 18 is allowable over Liang in view of Massarsky.

Claim 30

Claim 30 has been amended to more particularly point out and distinctly claim the subject matter. Claim 30 as amended defines a user interface, including:

- a first display area to depict a facial image;

- a second display area to depict variably exaggerated facial features and relationships among the facial features of the facial image;

- a third display area to depict a caricature of the facial image; and

- a variable exaggeration controller to control a degree of variable exaggeration applied to one or more facial features and relationships in the facial image;

- wherein the facial image, the variably exaggerated facial features, and the caricature are obtained by a process that includes:

  - receiving a facial image;

  - creating a line-drawing from the facial image;

  - computing a set of semantic facial features from key points of a face in the facial image to describe a geometric shape of the face;

  - comparing relationships among the semantic facial features to corresponding relationships between unexaggerated and exaggerated features in facial images and associated caricatures in a database of caricatures drawn by an artist;

  - applying a kernel regression to select some of the semantic facial features for caricature exaggeration and to exaggerate the semantic facial features into exaggerated features, wherein a nonlinear mapping between corresponding unexaggerated and exaggerated features in the database is learned via the kernel regression;

  - generating an exaggerated face shape by applying a maximum likelihood estimation (MLE) to the exaggerated features;

  - morphing the line-drawing into the exaggerated face shape to create a facial caricature;

  - wherein for each semantic facial feature to be exaggerated the degree of exaggeration is determined by the kernel regression; and

- wherein the degree of exaggeration of each feature to be exaggerated is adjustable by a user.

Claim 30 is allowable because neither Liang nor Massarsky, alone or in combination, teach or suggest all the elements of claim 30. For example, Liang does not show or disclose applying a kernel regression to select some of the semantic facial features for caricature exaggeration. Rather, Liang describes disintegrating the image into shape and shape-free texture (Fig. 1) and manually labeling set of feature points as shape model on original image as well as the exaggerated caricature (section 2). But Liang does not show or disclose applying kernel regression to select the semantic facial features for caricature exaggeration.

Liang also does not disclose that the degree of exaggeration of each feature to be exaggerated is adjustable by a user. Rather, Liang describes that when an image is presented, a particular prototype is chosen automatically and the magnitude of the exaggeration is discovered through linear regression by comparing the image to the closest match in the already available training data. The training data is developed from learned exaggeration prototypes. However, Liang does not show that users can adjust the magnitude of exaggeration applied.

Further, Massarsky describes a system of creating a caricature from an image taken in a photobooth. In this system, a variety of drawing icons are displayed for the user to choose from. This icon is moved on the screen and the caricature is gradually created following the path of the icon to simulate a sketch or painting created by an artist's hand (col. 5, lines 10-20). Massarsky does not mention that user can adjust the degree of exaggeration to be applied to the caricature.

Hence, Liang and Massarsky do not teach or suggest all the elements of Claim 30. Because the combination fails, Applicant respectfully submits that claim 30 is allowable over Liang in view of Massarsky.

Claim 31

Besides being dependent on allowable base claim 30, claim 31 is allowable because neither Liang nor Massarsky, alone or in combination, teach or suggest all the elements of claim 31. For example, Liang and Massarsky, alone or in combination, do not teach or suggest that wherein the first, second, and third display areas are shown simultaneously. In the portion cited by the Office, Liang has simply represented the experimental results of the various steps carried out during caricature generation (Section 5). This does not represent display areas of a user interface device. Hence, Liang does not disclose that the first, second, and third display areas can be shown simultaneously.

Hence, Liang and Massarsky do not teach or suggest all the elements of Claim 31. Because the combination fails, Applicant respectfully submits that claim 31 is allowable over Liang in view of Massarsky.

Claims 33 and 34

Claims 33 and 34 also depend from allowable base claim 30. In addition, Liang and Massarsky, either alone or in combination, do not teach or suggest all the elements of claims 33 and 34. For example, they do not teach or suggest manually adjusting a size or shape of a single feature or relationship.

Massarsky merely describes that a user can select a drawing icon and move it over the display screen but does not teach or suggest that the size or a shape of a

feature can be adjusted by the user. Liang also fails to disclose this aspect of Claims 33 and 34.

Because they do not teach or suggest the elements of Applicant's claim 33 or 34, the combination fails. Applicant respectfully submits that claims 33 and 34 are allowable over Liang in view of Massarsky.

Claim 41

Besides being dependent on allowable base claim 35, claim 41 is allowable because neither Liang nor Massarsky, alone or in combination, teach or suggest all the elements of claim 41. For example, Liang and Massarsky, alone or in combination, do not teach or suggest allowing a user to vary a degree of the exaggerating to be applied to a relationship among facial features while constraining the exaggerating in order to maintain the facial image within a range of probable faces.

While Office admits that Liang fails to disclose allowing a user to vary a degree of the exaggerating to be applied to a relationship among facial features, Massarsky also fails to teach or suggest a user to vary a degree of the exaggerating to be applied to a relationship among facial features. Rather, Massarsky merely describes that a user can select a drawing icon and move it over the display screen but does not teach or suggest that the size or a shape of a feature can be adjusted by the user.

Hence, Liang and Massarsky do not teach or suggest all the elements of Claim 41. Because the combination fails, Applicant respectfully submits that claim 41 is allowable over Liang in view of Massarsky.

Claim 32

Besides being dependent on allowable base claim 35, claim 32 is allowable because neither Liang nor Harville, alone or in combination, teach or suggest all the elements of claim 32. For example, Liang and Harville, alone or in combination, do not teach or suggest selectable list of facial features and relationships to be selected for variable exaggeration.

While Office admits that Liang fails to disclose a selectable list of facial features and relationships to be selected for variable exaggeration, Harville also fails to teach or suggest a selectable list of facial features and relationships to be selected for variable exaggeration. Rather, Harville describes that during a multimedia presentation, a user can select parameters such as path progress indicator, the style of animation etc. but does not teach or suggest a selectable list of facial features and relationships to be selected for variable exaggeration for caricature generation.

Hence, Liang and Harville do not teach or suggest all the elements of Claim 32. Because the combination fails, Applicant respectfully submits that claim 32 is allowable over Liang in view of Harville.

CONCLUSION

Applicant respectfully submits that claims 1, 3-41, and 45-48 are currently pending and are in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application. Should any matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

Respectfully Submitted,

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